REMARKS/ARGUMENTS

This Reply is responsive to the Office Action mailed to Applicant on June 30, 2003. Applicant submits new claims 24-31 and cancels original claims 1-23. No new matter is added in this Reply. New claims 24-31 generally correspond to original claims 1-8, 10, and 12-18, which Applicant elected for prosecution in a Response dated April 10, 2003. New claims 25 and 29, as presently drafted, read on "embodiment 1" of the invention illustrated by Figs. 1-3 of the Application. Applicant considers the remaining new claims to be generic.

Rejections Under 35 U.S.C. § 112, ¶ 1

Applicant contends that new claims 24-31 particularly point out and distinctly claim inventive subject matter, thereby obviating this rejection.

Rejections Under 35 U.S.C. § 103(a)

The Examiner has stated that he believes Watanabe et al. (U.S. Patent No. 6,376,791) discloses the invention claimed in original claims 1-8, 10, and 12-18, except for the contact being utilized in an interrupter assembly. Specifically, the Examiner has stated that he believes Watanabe et al discloses a "contact assembly having a center and an outer edge formed of a plurality of assembly portions/materials wherein the magnetic field produced in the contact has substantially constant strength from the contact center to the contact edge." Applicant respectfully disagrees with the Examiner's interpretation of Watanabe et al.

Watanabe et al. does not teach, disclose, or suggest a contact assembly where the magnetic field has a substantially constant strength from the contact center to the contact edge. For instance, Fig. 1 of Watanabe et al., which depicts axial magnetic flux density over the radius of the Watanabe et al. contact assemblies, distinctly shows that as one moves from the center (i.e., "0" electrode radius percentage) to the outer edge of the contact (i.e., "100" electrode radius percentage) the axial magnetic flux density in the Watanabe et al. contacts markedly and undeniably increases by a large amount. Consider also Fig. 10(A) of Watanabe et al., which

shows an even larger and more marked increase in axial magnetic flux density as one moves from the center of the contact (i.e., "0") to the outer edge of the contact.

Moreover, nowhere in its disclosure does Watanabe et al. teach, disclose, or suggest the use of an electrically conductive material in combination with first and second magnetically saturable materials positioned within a contact to control the distribution of axial magnetic fields passing through the contact, let alone a contact within an interrupter assembly. Accordingly, the subject matter in claims 24-31 would in no way have been obvious to one ordinarily skilled in the art at the time the invention was made based on the teachings or suggestions of Watanabe et al.

Regarding original claims 4-8, 10, and 14-18, the Examiner has stated that he believes these claims are unpatentable over Watanabe et al. in view of Okutomi et al (U.S. Patent No. 6,080,952). Specifically, the Examiner has stated that he believes Okutomi et al. discloses the use of materials having "high magnetic permeability and saturation," and that it therefore would have been obvious to one ordinarily skilled in the art at the time the invention was made to use materials having specific magnetic permeabilities and saturations in order to provide the desired breaking characteristics and flux control as in original claims 4-8, 10, and 14-18. Again, Applicant respectfully disagrees with the Examiner.

First, as noted above, the Examiner's interpretation of Watanabe et al. cannot stand. Accordingly, the combination of Watanabe et al. and Okutomi et al. necessarily fails to teach or suggest the subject matter in claims 24-31 as well. In addition, Okutomi et al., like Watanabe et al., fails to teach, disclose, or suggest that improved interrupter performance can be achieved by maintaining a nearly constant field strength across the diameter of the contact. Instead, Okutomi et al. teaches that its inventors believed it desirable to create a higher magnetic flux density *at the periphery* of the contact than at the center of the contact. *See, e.g.,* Col. 4, l. 11-13. Striving to achieve a higher axial magnetic flux density at the periphery of a contact is quite different than coordinating the placement of materials within a contact to achieve a nearly uniform magnetic field strength from the center of the contact to the outer edge of the contact.

Finally, the means disclosed by Okutomi et al. to create a higher flux density at the periphery of the contact than at the center is completely different than that of the subject matter in claims 24-31. Rather than arranging two materials with different magnetic properties within electrically conductive portions of the contact in order to manipulate the distribution of an existing axial magnetic field as in claims 24-31 of this Application, Okutomi et al. teaches the use of a *single* piece of highly *permeable* magnetic material that *extends across substantially the entire radial portion* of the contact in order to create a second, additional magnetic force in the axial or longitudinal direction. *See, e.g.,* Col. 2, l. 33-38; Col. 4, l. 11-17, 28-61; Figs. 3-5, Item 16. Thus, Okutomi et al. fails to teach, disclose, or suggest, either alone or in combination with Watanabe et al., the subject matter set forth in claims 24-31.

Accordingly, Applicant respectfully submits that all of the pending rejections in this Application should be withdrawn, and that this Application is in condition for allowance.

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David L. Marcus
Registration No. 46,897

Woodcock Washburn LLP
One Liberty Place - 46th Floor
Philadelphia PA 19103
Telephone: (215) 568-3100
Facsimile: (215) 568-3439